The Background

- Imagine a market for residential properties in a floodplain
- For simplicity, assume the properties are identical with a price P_1

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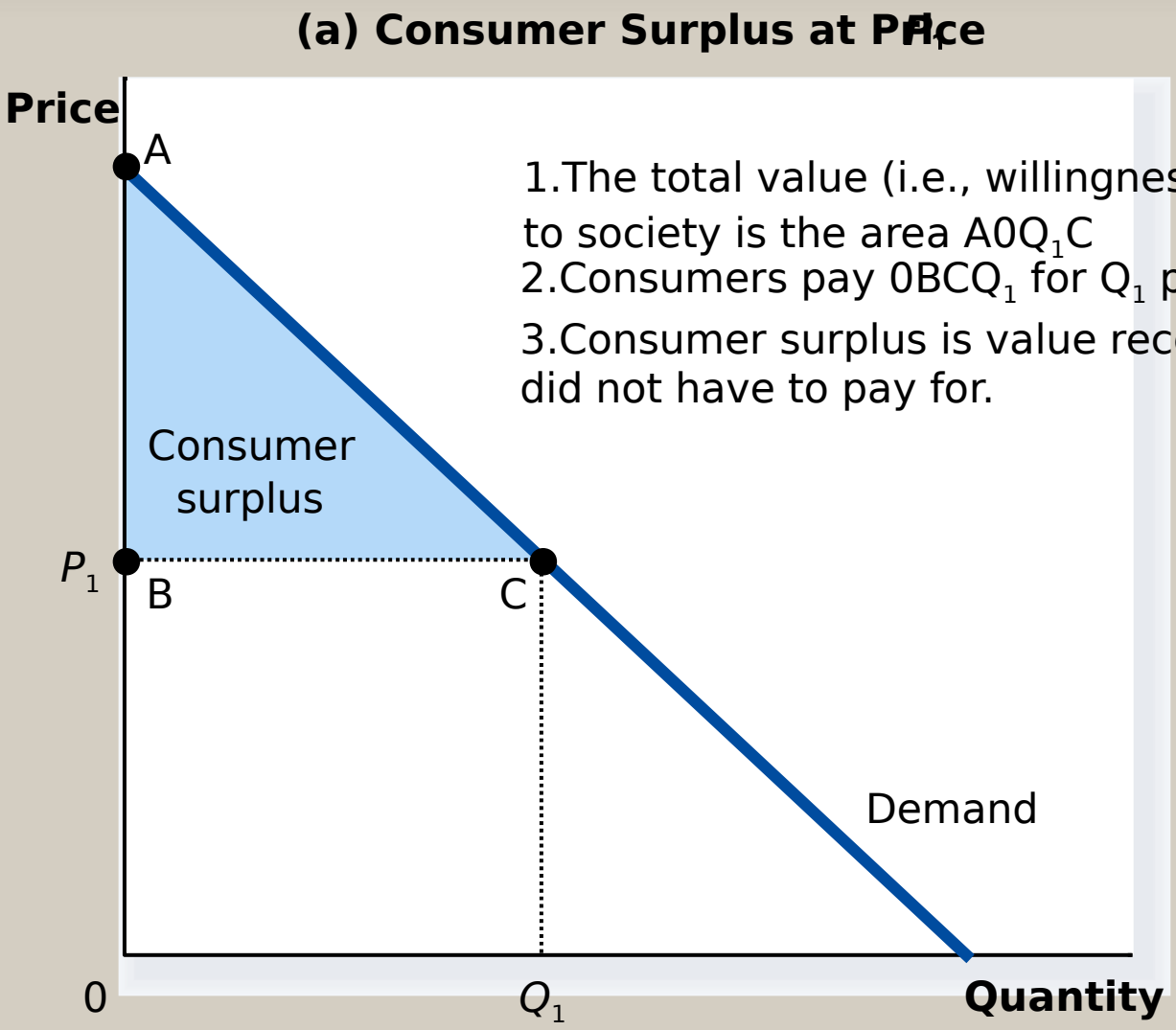
Consumer Surplus



1.The total value (i.e., willingness to pay) of Q_1 prope
to society is the area $A0Q_1C$
2.Consumers pay $0BCQ_1$ for Q_1 properties.
3.Consumer surplus is value received that consume
did not have to pay for.

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Flood Protection

- Flood protection reduces flood damages
- This lowers the price of living in the flood plain
- A price change increases consumer surplus—the value received in addition to the price paid

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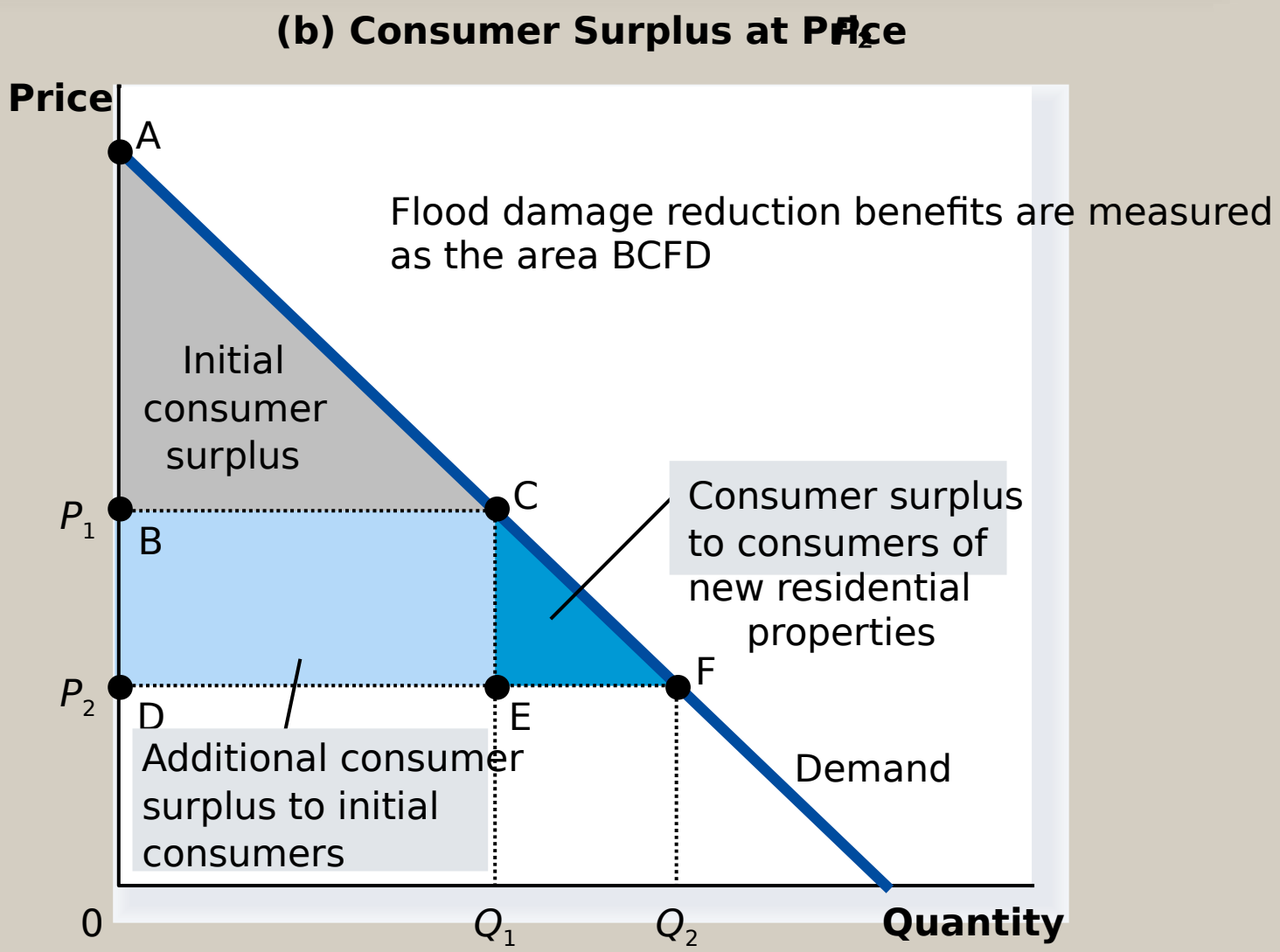
How Flood Damage Reduction Affects Consumer Surplus



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